wave was attended by frost from New Mexico over the Dakotas, Iowa, Minnesota, northern Wisconsin, and northern Michigan. Marked temperature falls in the Northwest on the 2d, 5th, 8th, 12th, and 18th were followed by cooler weather in limited areas in the northwest and north-central districts.

FROST.

The first heavy frost of the season was reported as follows: 29th, Dulce, N. Mex.; Gallatin and Millbank, S. Dak. 30th, Monero, N. Mex.; Milton, N. Dak.; Evanston, Wyo. The first light frost of the season was reported as follows: 8th, Coolidge, N. Mex. 9th, Evanston, Wyo. 17th, Miles City, Mont. 18th, Fort Buford, N. Dak. 19th, Barron, Crandon, and Osceola Mills, Wis. 20th, Fayette, Iowa; Meadow Valley, Wis. 27th, Mullen, Nebr. 28th, Beaver, Idaho. 29th, Fort Collins and Smoky Hill Mine, Colo.; Gering, Kennedy, and North Loup, Nebr.; Bowdle, Faulkton, and Frankfort, S. Dak.; Cheyenne, Lander, and Saratoga, Wyo. 30th, San Luis, Colo.; Corydon, Decorah, Greenfield, and Mason City, Iowa; Bloomfield, Halls Peak, and Olio, N. Mex.; Ashley, Churchs Ferry, and Forman, N. Dak.; Aberdeen, Brookings, Castlewood, Cross, De Smet, and Forestburg, S. Dak. 31st, Philo, Ill.; College Springs, Cresco, Grundy Center, Iowa City, Mechanicsville, and Osage, Iowa; Florence, Wis.

Frost injurious to vegetation was reported as follows: 17th and 28th, produce damaged about Tuscarora, Nev. 20th and 22d, vines slightly nipped about Sault Ste. Marie, Mich. 29th, vines and tender vegetation slightly injured at Gering, Nebr., and Lander, Wyo. 30th, slight damage caused at Mason City and Ottumwa, Iowa, and Evanston, Wyo.

PRECIPITATION (expressed in inches and hundredths).

The distribution of precipitation over the United States and Canada for August, 1892, as determined from the reports of about 2,000 stations, is exhibited on Chart III. In the table of miscellaneous meteorological data the total precipitation and the departure from the normal are given for regular stations of the Weather Bureau. The figures opposite the names of the geographical districts in the columns for precipitation and departure from the normal show, respectively, the averages for the several districts. The normal for any district may be found by adding the departure to the current mean when the precipitation is below the normal and subtracting when above.

The precipitation for August is usually greatest along the eastern coast of the Gulf of Mexico, where it exceeds 8.00, and the normal amount exceeds 6.00 along the immediate south Atlantic and middle Gulf coasts. In the Atlantic coast states, in areas in the western lake region and upper Mississippi valley, and in the mountain regions of central New Mexico and southeastern Arizona 4.00 to 6.00 is usually recorded. In all districts east of the Rocky Mountains, and in areas in the southern plateau region, the precipitation for August generally exceeds 2.00. Over the western plateau and Pacific coast districts the monthly average is less than 1.00, save on the extreme north Pacific coast, where it exceeds 2.00. Over a great part of the western plateau region, and in the middle and south Pacific coast states, there is usually an almost entire absence of precipitation in August.

In August, 1892, the monthly precipitation was greatest in the southern parts of the east Gulf states and Georgia, and in central parts of the Florida Peninsula, where it exceeded 8.00, and in areas in those districts it exceeded 10.00. The monthly precipitation also exceeded 8.00 at stations in New Hampshire and western Maine. The precipitation east of the Rocky Mountains was very irregularly distributed. In the Atlantic coast states it varied from 4.00 to 6.00 in areas, and in Maryland, the District of Columbia, and northern and central Virginia it was less than 2.00. Over the greater part of California, Oregon, and the western plateau region no rainfall was reported, and it was less than 1.00 in all districts west of the Rocky Mountains, except on the extreme north Pacific coast and in areas in southeastern Arizona.

DEPARTURES FROM NORMAL PRECIPITATION.

The monthly precipitation was generally deficient, except from the lower lake region and New York over New England and the Canadian Maritime Provinces, in the middle and west Gulf states, at points in a narrow strip extending from eastern Manitoba to Texas, and in the British Possessions. In small areas in the northeast and southwest districts the excess was 4.00 to 6.00. The most marked deficiency was shown in the Atlantic coast states south of Pennsylvania, where it was 2.00 to 4.00. The deficiency was also more than 2.00 in New Mexico, and at Davenport, Iowa, and Indianapolis, Ind.

Considered by districts the monthly precipitation averaged about normal in the Missouri Valley, on the middle-eastern slope of the Rocky Mountains, and on the north Pacific coast. In districts where the precipitation was in excess the average percentage of the normal was about as follows: East Gulf states, 146; west Gulf states, 142; lower lake region, 129; extreme northwest, 127; New England, 119. In districts where the precipitation was deficient the percentage of the normal was about as follows: middle plateau region, 17; Key West, Fla., 33; southern plateau region, 36; south Atlantic states, 48; northern plateau region, 51; middle Atlantic states, 73; upper Mississippi valley, 78; northeast slope of the Rocky Mountains, 83; Ohio Valley and Tennessee, 84; southeast slope of the Rocky Mountains, 86; upper lake region, 87.

DEVIATIONS FROM AVERAGE PRECIPITATION.

The following table shows for certain stations, as reported by voluntary observers, (1) the average precipitation for August for a series of years; (2) the length of record during which the observations have been taken and from which the average has been computed; (3) the total precipitation for August, 1892; (4) the departure of the current month from the average; (5) and the extremes for August during the period of observation and the years of occurrence:

State and station.	(1) Average for the month of August.	(2) Length of record.	(3) Total for August, 1892.	(4) Departure from average.	(5) Extremes for August.			
					Greatest.		Least.	
					Am't.	Year.	Am't.	Year.
Arizona.	*Inches.*	*Years*	*Inches.*	*Inches.*	*Inches.*		*Inches*	
Fort Apache	3.99	16	1.36	— 2.63	9.33	1878	1.00	1888
Fort Mohave	0.67	21	0.00	— 0.67	3.80	1873	0.00	1871, 1892
Whipple Barracks	2.95	21	2.04	— 0.91	6.34	1878	0.24	1873
Arkansas.								
Keesees Ferry	5.66	10	2.88	— 2.78	11.53	1888	2.37	1891
California.								
Fort Bidwell	0.14	21	0.02	— 0.12	0.42	1880	0.00	†
Riverside	0.33	11	.....	.....	3.00	1884	0.00	*
Colorado.								
Las Animas	1.63	9	0.12	— 1.51	3.75	1885	0.06	1889
Florida.								
Merritts Island	6.11	14	2.37	— 3.74	15.77	1880	1.15	1883
Georgia.								
Forsyth	4.97	18	7.72	+ 2.75	8.05	1891	2.50	1888
Idaho.								
Boise Barracks	0.23	19	0.00	— 0.23	1.65	1873	0.00	†
Fort Sherman	0.29	8	1.51	+ 1.22	1.51	1892	0.00	1882, 1886
Illinois.								
Centralia	3.69	13	.....	.....	7.80	1888	0.60	1881
Indiana.								
Lafayette	3.81	10	3.57	— 0.24	7.17	1890	1.12	1884
Indian Territory.								
Fort Supply	1.83	13	4.52	+ 2.69	5.32	1883	0.35	1874
Iowa.								
Cresco	3.13	19	2.65	— 0.48	8.34	1884	0.92	1889
Kansas.								
Eureka Ranch	4.04	3	2.93	— 1.11	8.35	1888	1.29	1891
Independence	3.07	20	4.22	+ 1.15	7.46	1885	0.33	1891
Salina	3.00	10	4.49	— 1.49	6.60	1887	0.30	1882
Louisiana.								
Grand Coteau	3.96	8	2.25	— 1.71	8.07	1888	0.42	1883

Deviations from average precipitation—Continued.

State and station.	(1) Average for the month of Aug.	(2) Length of record.	(3) Total for Aug., 1892.	(4) Departure from average.	(5) Extremes for August. Greatest. Am't.	Greatest. Year.	Least. Am't.	Least. Year.
Maine.	*Inches*	*Years*	*Inches.*	*Inches.*	*Inches.*		*Inches*	
Orono	3.66	21	6.41	+ 2.75	7.36	1885	0.53	1883
Maryland.								
Cumberland	3.17	21	1.90	— 1.27	8.09	1882	0.31	1881
Michigan.								
Kalamazoo	2.72	16	2.51	— 0.21	8.94	1885	0.31	1889
Missouri.								
Sedalia	2.24	14	0.29	— 1.95	5.83	1888	0.29	1892
Montana.								
Fort Custer	1.10	12	.....	.....	2.55	1880	0.03	1881
Nebraska.								
Fort Robinson	1.94	9	1.94	0.00	3.32	1887	0.90	1886
Genoa (near)	2.43	16	5.81	+ 3.38	5.81	1892	0.45	1881
Nevada.								
Browns	0.08	21	0.00	— 0.08	1.00	1874	0.00	•
Carson City	0.14	16	0.02	— 0.12	1.13	1890	0.00	•
New Hampshire.								
Hanover	3.37	21	6.25	+ 2.88	7.77	1885, 1890	0.42	1876
New Mexico.								
Deming	1.81	10	0.39	— 1.42	4.19	1886	0.39	1892
Fort Wingate	2.14	21	0.30	— 1.84	5.90	1878	0.24	1888
New York.								
Cooperstown	3.41	21	7.96	+ 4.55	9.08	1885	0.63	1876
Plattsburg Barracks	3.05	21	7.18	+ 4.13	7.18	1892	0.37	1876
North Carolina.								
Lenoir	5.90	20	2.40	— 3.50	10.20	1886	2.10	1877
Oklahoma.								
Fort Reno	2.84	9	4.30	+ 1.46	5.53	1883	0.34	1886
Fort Sill	3.13	20	4.06	+ 0.93	9.73	1888	T.	1874
Oregon.								
Bandon	0.60	13	0.15	— 0.45	2.16	1879	0.00	1888
Eola	0.45	21	0.17	— 0.28	1.81	1879	0.00	•
Pennsylvania.								
Dyberry	4.30	20	4.64	+ 0.34	8.77	1885	0.95	1883
Grampian	4.49	15	3.74	— 0.75	8.19	1888	1.66	1883
Wellsboro	5.14	13	4.73	— 0.41	15.25	1885	0.83	1889
South Carolina.								
Statesburg	4.73	11	1.38	— 3.35	8.78	1891	1.38	1892
South Dakota.								
Fort Sully	1.94	21	1.48	— 0.46	5.26	1880	0.20	1882
Texas.								
Austin	1.91	20	6.45	+ 4.54	6.45	1892	T.	1877
Silver Falls	2.00	6	2.72	+ 0.72	4.29	1888	0.00	1889
Utah.								
Terrace	0.17	20	0.00	— 0.17	1.21	1878	0.00	•
Vermont.								
Strafford	3.72	19	4.50	+ 0.78	8.85	1890	1.40	1882
Virginia.								
Dale Enterprise	4.31	12	2.86	— 1.45	10.50	1882	1.26	1890
Washington.								
Fort Townsend	1.76	18	.....	.....	2.52	1891	0.00	1885
West Virginia.								
Parkersburg	4.19	7	2.33	— 1.86	6.71	1888	0.88	1887
Wisconsin.								
Embarrass	5.01	21	3.55	— 1.46	7.85	1881	0.40	1873
Madison	2.39	21	3.43	+ 1.04	6.83	1882	0.56	1881
Wyoming.								
Fort Washakie	0.56	10	0.32	— 0.24	2.06	1888	T.	1886

•Generally. †Frequently.

PRECIPITATION, JANUARY TO AUGUST, 1892.

For the period January to August, 1892, inclusive, the precipitation averaged about normal in the middle Atlantic and east and west Gulf states, the Ohio Valley and Tennessee, the upper lake region, on the middle-eastern slope of the Rocky Mountains, and over the middle and northern plateau regions. In the lower lake region, the extreme northwest, the upper Mississippi and Missouri valleys, and on the northeast slope of the Rocky Mountains the precipitation was one-tenth to three-tenths greater than usual, and in the New England and south Atlantic states, at Key West, Fla., on the southeast slope of the Rocky Mountains, over the southern plateau region, and on the north Pacific coast the precipitation was seven-tenths to nine-tenths of the normal amount for the period named.

YEARS OF GREATEST PRECIPITATION FOR AUGUST.

At Portland, Me., Plattsburg Barracks, N. Y., Montgomery, Ala., San Antonio and Austin, Tex., Valentine, Nebr., and Fort Sherman, Idaho, the precipitation for the current month was the greatest ever reported for August during the respective periods of observation. The greatest precipitation for August was noted on the north Pacific coast in 1889; in the middle and lower Mississippi valleys in 1888; over the northern plateau region in 1887; in the upper Mississippi valley in 1885; along the east Gulf coast and in northern Florida in 1881; along the middle Pacific coast in 1879, and in Maine in 1877.

YEARS OF LEAST PRECIPITATION FOR AUGUST.

At Washington, D. C., Statesburg, S. C., Key West, Fla., Sedalia, Mo., Deming and Santa Fe., N. Mex., and Salt Lake City, Utah, the precipitation for the current month was the least ever reported for August during the respective periods of observation. The least precipitation for August was noted over the east part of the middle and southern plateau regions in 1889; over the northern plateau region in 1888; on the north Pacific coast in 1885; along the Massachusetts and Maine coasts in 1883; in the extreme northwest in 1882; from the upper Ohio valley over Virginia and North Carolina in 1881, and in New York and western New England in 1876.

EXCESSIVE PRECIPITATION.

The following tables show, by states, the number of stations reporting monthly precipitation to equal or exceed 10.00; precipitation to equal or exceed 2.50 in 24 hours; and precipitation to equal or exceed 1.00 in 1 hour in August, 1892:

Monthly precipitation to equal or exceed 10.00.

State.	Number of stations.	State.	Number of stations.
Florida	10	Maine	1
New Hampshire	5	Massachusetts	1
Alabama	4	New York	1
Georgia	4	North Carolina	1

Precipitation to equal or exceed 2.50 *in* 24 *hours.*

State.	Number of stations.	Dates.	State.	Number of stations.	Dates.
Texas	12	8-9, 9, 14, 15, 24, 25, 30, 31.	Wisconsin	4	10, 24, 29-30.
Florida	8	2, 5-6, 12-13, 13, 17, 29, 31.	Arkansas	3	25-26, 26, 26-27.
Illinois	8	5, 6, 7, 11-12, 23-24, 24.	Louisiana	3	15, 15-16.
New York	8	10, 24, 24-25, 25, 26.	Ohio	3	11, 19, 24-25.
Georgia	7	7, 15, 15-16, 16.	Indiana	2	18-19.
New Hampshire	7	11-12, 12, 25-27, 26-27, 27.	Kentucky	2	1, 11.
Kansas	6	10, 22, 22-23, 23.	Maine	2	10, 12, 25.
Alabama	4	12, 15-16, 17, 22, 24, 29-30.	Missouri	2	10, 23.
Massachusetts	4	11-12, 26, 26-27.	Connecticut	1	25-26.
North Carolina	4	7, 22, 24.	Nebraska	1	28-29.
Pennsylvania	4	10, 10-11, 24-25, 25-26.	Oklahoma	1	11-12.
Virginia	4	1, 21-22, 23, 23-24, 25.	Rhode Island	1	10.
			South Carolina	1	1-2.
			South Dakota	1	27-28.
			Tennessee	1	9.
			Vermont	1	25.

Precipitation to equal or exceed 1.00 *in* 1 *hour.*

State.	Number of stations.	Dates.	State.	Number of stations.	Dates.
Kansas	15	6, 9, 13, 20, 21, 22, 23, 28.	South Carolina	4	8, 12, 24.
Florida	14	2, 3, 5, 9, 13, 14, 22, 26, 27, 28, 29, 31.	Indian Territory	3	11, 13, 21.
Alabama	9	12, 13, 15, 19, 21, 22, 26, 29.	Missouri	3	7, 11, 20, 23.
Texas	9	1, 2, 7, 9, 13, 15, 27, 29, 31.	South Dakota	3	12, 13, 14.
North Carolina	8	7, 8, 22, 23, 24, 30, 31.	Nebraska	2	10, 23.
Arkansas	5	9, 21, 23, 26, 27.	Virginia	2	22, 31.
Illinois	5	5, 6, 11, 29.	West Virginia	2	2, 12.
Mississippi	5	9, 19, 23, 26.	Wisconsin	2	10, 29.
Georgia	4	7, 15, 18, 23, 25, 26, 27.	Indiana	1	7.
Louisiana	4	9, 16, 24, 27.	Kentucky	1	8.
Ohio	4	1, 8, 19, 24.	Massachusetts	1	12.
			Michigan	1	8.
			New Hampshire	1	12.
			New Jersey	1	21.
			New York	1	4.
			North Dakota	1	27.
			Tennessee	1	1.

Table of excessive precipitation, August, 1892.

State and station.	Monthly rainfall 10 inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall 1 inch, or more, in one hour.		
		Amt.	Day.	Amt.	Time.	Day.
Alabama.	*Inches.*	*Inches.*		*Inches*	*h. m.*	
Brewton	13.55	2.50	12	.....	.....	.....
Do	.....	2.50	17	.....	.....	.....
Do	.....	3.50	24	1.00	1 00	21
Daphne	11.77	.....	.....	.....	.....	.....
Eufaula *a*	10.09	.....	.....	2.00	1 20	12
Evergreen	.....	.....	.....	1.94	1 15	15
Jasper	.....	3.14	22	3.14	1 30	22
Mobile	13.47	.....	.....	1.81	1 00	13
Do	.....	2.74	29-30	2.57	0 55	29
Pineapple	.....	.....	.....	2.10	1 30	26
Selma *a*	.....	.....	.....	1.03	1 00	19
Sturdevant	.....	3.06	15-16	1.00	1 00	22
Talladega	.....	.....	.....	1.09	0 09	19
Arkansas.						
Arkadelphia	.....	.....	.....	2.00	2 00	27
Dallas	.....	.....	.....	1.15	1 00	9
Hot Springs	.....	2.50	26	1.00	0 45	21
Keesees Ferry	.....	.....	.....	1.10	0 44	23
Little Rock	.....	3.13	26-27	.....	.....	.....
Stuttgart	.....	2.54	25-26	.....	.....	.....
Washington *b*	.....	.....	.....	1.96	1 30	26
Connecticut.						
New Hartford *a*	.....	3.02	25-26	.....	.....	.....
Florida.						
Archer	11.15	.....	.....	.....	.....	.....
Avon Park	.....	.....	.....	2.15	1 10	5
Do	.....	.....	.....	1.00	0 50	22
Bristol	12.34	.....	.....	1.01	1 00	3
Brooksville	13.59	2.50	17	.....	.....	.....
Clermont	10.67[1]	.....	.....	.....	.....	.....
Federal Point	12.10	.....	.....	.....	.....	.....
Gainesville	12.96	.....	.....	.....	.....	.....
Homeland	.....	.....	.....	1.19	1 10	5
Hypoluxo	.....	3.23	13	3.23	1 35	13
Jacksonville	.....	.....	.....	1.30	0 23	31
Jupiter	.....	.....	.....	1.05	0 30	14
Ocala	10.02	3.40	2	3.40	3 00	2
Do	.....	.....	.....	1.00	1 00	22
Orlando	.....	3.14	5-6	1.25	0 30	3
Oxford	13.74	.....	.....	.....	.....	.....
Pensacola	.....	2.93	31	1.17	1 00	31
Saint Francis Barracks	.....	2.50	12-13	1.18	1 00	27
Saint Petersburg	10.87	.....	.....	1.67	0 40	20
Do	.....	2.53	29	2.53	2 20	29
Tampa	.....	.....	.....	1.05	0 47	3
Do	.....	.....	.....	1.83	0 45	9
Do	.....	.....	.....	1.00	0 50	28
Tarpon Springs	13.56	4.85	13	1.26	1 00	29
Titusville	.....	.....	.....	1.20	1 05	5
Georgia.						
Alapaha	10.20	.....	.....	.....	.....	.....
Albany	.....	4.60	16	.....	.....	.....
Americus	.....	3.25	15-16	.....	.....	.....
Atlanta	.....	.....	.....	1.15	0 53	25
Blakely	.....	3.07	7	.....	.....	.....
Fleming	12.31	4.45	15	.....	.....	.....
Forsyth	.....	.....	.....	1.44	1 00	23
Do	.....	.....	.....	1.61	1 00	27
Lumpkin	.....	.....	.....	2.29	1 30	18
Morgan	.....	2.75	15	.....	.....	.....
Poulan	12.33	.....	.....	1.22	0 45	7
Do	.....	.....	.....	1.61	1 30	15
Do	.....	.....	.....	1.16	1 00	26
Quitman *b*	.....	3.25	15-16	.....	.....	.....
Thomasville	13.89	5.02	15-16	.....	.....	.....
Illinois.						
Cairo	.....	2.80	11-12	1.42	1 00	11
Collinsville	.....	2.60	7	.....	.....	.....
Ellsworth	.....	2.90	5	.....	.....	.....
Louisville	.....	3.60	6	.....	.....	.....
Pana	.....	4.50	6	4.50	2 00	6
Philo	.....	3.18	5	2.63	0 45	5
Rantoul	.....	.....	.....	1.13	1 00	6
Rockford	.....	4.80	23-24	.....	.....	.....
Springfield	.....	.....	.....	1.34	1 00	29
Winnebago	.....	3.66	24	.....	.....	.....
Indiana.						
Butlerville	.....	2.86	18-19	.....	.....	.....
Degonia Springs	.....	.....	.....	1.48	1 20	7
New Albany	.....	2.60	19	....	.....	.....
Indian Territory.						
Fort Supply	.....	.....	.....	1.60	1 00	13
Healdton	.....	.....	.....	1.18	1 00	11
South McAlester	.....	.....	.....	1.25	1 00	21
Kansas.						
Allison	.....	.....	.....	2.32	1 30	9
Altoona	.....	4.08	23	.....	.....	.....
Coldwater	.....	.....	.....	1.08	1 00	21
Cunningham	.....	.....	.....	1.28	0 45	13
Dodge City	.....	.....	.....	1.15	0 35	9
Do	.....	.....	.....	1.40	1 14	23
Gibson	.....	2.82	22-23	.....	.....	.....
Grainfield	.....	.....	.....	1.00	0 55	28
Greensburg	.....	.....	.....	1.56	1 00	23
Hesston	.....	2.75	22	.....	.....	.....
Lebo	.....	.....	.....	2.01	0 30	22
Macksville	.....	.....	.....	1.00	0 30	20
Manhattan *b*	.....	.....	.....	1.02	0 20	23
Oakley	.....	2.50	23	.....	.....	.....
Oswego	.....	.....	.....	1.73	1 00	22
Quinter	.....	2.50	23	2.50	1 00	23

Table of excessive precipitation—Continued.

State and station.	Monthly rainfall 10 inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall of 1 inch, or more, in one hour.		
		Amt.	Day.	Amt.	Time.	Day.
Kansas—Continued.	*Inches.*	*Inches.*		*Inches*	*h. m.*	
Salina	.....	.....	.....	1.32	0 50	13
Sharon Springs	.....	.....	.....	2.00	0 40	20
Wakefield	.....	.....	.....	1.20	0 40	6
Wallace *b*	.....	.....	.....	1.00	0 35	22
Yates Center	.....	2.72	10	.....	.....	.....
Kentucky.						
Harrodsburg	.....	.....	.....	1.20	1 00	8
Wickliffe	.....	2.87	11	.....	.....	.....
Williamsburg *a*	.....	2.50	1	.....	.....	.....
Williamsburg *b*	.....	2.89	1	.....	.....	.....
Louisiana.						
Abbeville	.....	3.20	15	.....	.....	.....
Baton Rouge	.....	.....	.....	1.19	1 00	27
Emilie	.....	.....	.....	1.10	0 45	24
Marksville	.....	.....	.....	1.15	0 25	9
Do	.....	.....	.....	1.25	0 20	27
New Orleans	.....	3.85	15-16	1.07	1 00	16
Sugar Experiment Station	.....	5.48	15	.....	.....	.....
Maine.						
Cornish	11.12	3.17	12	.....	.....	.....
Do	.....	3.61	25	.....	.....	.....
Mayfield	.....	2.54	10	.....	.....	.....
Massachusetts.						
Amherst	.....	2.50	11-12	.....	.....	.....
Boston	.....	.....	.....	1.50	1 00	12
Monroe	.....	2.62	26	.....	.....	.....
Princeton	.....	2.90	26	.....	.....	.....
Royalston	10.12	.....	.....	.....	.....	.....
Springfield Armory	.....	2.60	26-27	.....	.....	.....
Michigan.						
Manistee	.....	.....	.....	1.67	0 30	8
Mississippi.						
Crystal Springs	.....	.....	.....	1.36	0 50	23
Duck Hill	.....	.....	.....	1.78	1 20	19
Louisville	.....	.....	.....	1.66	1 00	26
Vaiden	.....	.....	.....	1.04	1 00	9
Waynesboro *b*	.....	.....	.....	1.40	0.30	26
Missouri.						
Gainesville	.....	.....	.....	2.35	1 15	20
Do	.....	.....	.....	1.10	0 30	23
Gallatin	.....	4.50	23	.....	.....	.....
Gordonville	.....	.....	.....	1.04	1 00	7
New Haven	.....	2.50	10	.....	.....	.....
Oto	.....	.....	.....	1.40	1 06	11
Nebraska.						
Franklin	.....	2.83	28-29	.....	.....	.....
Orleans	.....	.....	.....	1.20	0 30	23
Valentine	.....	.....	.....	1.56	1 25	10
New Hampshire.						
Belmont	.....	4.36	25-27	.....	.....	.....
Brookline	.....	3.20	12	.....	.....	.....
Concord *a*	.....	3.10	12	.....	.....	.....
Do	.....	2.77	27	.....	.....	.....
East Canterbury	11.16	3.25	11-12	.....	.....	.....
Do	.....	3.15	26-27	.....	.....	.....
Grafton	11.23	2.53	12	.....	.....	.....
Lakeport	.....	2.58	11-12	.....	.....	.....
Do	.....	4.85	25-27	.....	.....	.....
Manchester (V. O)	.....	.....	.....	2.20	1 00	12
Mount Washington	10.30	.....	.....	.....	.....	.....
Plymouth	10.85	.....	.....	.....	.....	.....
Sanbornton	10.68	.....	.....	.....	.....	.....
Wiers Bridge	.....	2.74	11-12	.....	.....	.....
Do	.....	4.47	25-27	.....	.....	.....
New Jersey.						
Egg Harbor City	.....	.....	.....	1.86	1 35	21
New York.						
Canton	.....	4.60	24-25	.....	.....	.....
DeKalb Junction	.....	5.03	25	.....	.....	.....
Gloversville	.....	3.16	25	.....	.....	.....
Ithaca	.....	.....	.....	1.47	0 25	4
North Hammond	11.78	6.40	26	.....	.....	.....
Number Four	.....	3.12	25	.....	.....	.....
Palermo	.....	2.49	10	.....	.....	.....
Sherman	.....	4.65	24	.....	.....	.....
Utica	.....	2.60	25	.....	.....	.....
North Carolina.						
Currituck Inlet	.....	2.65	24	.....	.....	.....
Goldsboro	.....	.....	.....	1.00	0 50	24
Horse Cove	10.15	.....	.....	1.37	0 56	8
Louisburg	.....	.....	.....	1.55	1 30	22
Lumberton	.....	.....	.....	1.32	1 00	30
Raleigh	.....	.....	.....	1.00	1 00	7
Saxon	.....	3.24	24	.....	.....	.....
Soapstone Mount	.....	2.54	7	2.54	1 15	7
Do	.....	.....	.....	1.35	1 10	23
Weldon	.....	3.60	22	3.43	0 50	22
Wilmington	.....	.....	.....	1.17	0 52	31
North Dakota.						
Bismarck	.....	.....	.....	1.05	1 00	27
Ohio.						
Bloomingburg	.....	3.25	11	.....	.....	.....
Cleveland	.....	.....	.....	1.12	1 00	19
Columbus	.....	.....	.....	1.03	0 40	1
Jacksonboro	.....	.....	.....	1.50	1 00	8
Marion	.....	2.50	19	.....	.....	.....
Sandusky	.....	3.54	24-25	2.25	0 45	24
Oklahoma Territory.						
Oklahoma City	.....	3.00	11-12	.....	.....	.....
Pennsylvania.						
Blooming Grove	.....	3.20	25-26	.....	.....	.....

Table of excessive precipitation—Continued.

State and station.	Monthly rainfall 10 inches, or more.	Rainfall 2.50 inches, or more, in 24 hours.		Rainfall 1 inch, or more, in one hour.		
		Amt.	Day.	Amt.	Time.	Day.
Pennsylvania—Continued.	*Inches.*	*Inches.*		*Inches*	*h. m.*	
Corry		4.00	10-11			
Erie		2.54	24-25			
Wilkesbarre		2.67	10			
Rhode Island.						
Lonsdale		2.63	10			
South Carolina.						
Charleston				1.73	1 00	24
Cheraw *a*				1.82	1 00	8
Columbia		3.11	1-2			
Greenville				1.04	0 45	12
Port Royal				1.25	0 30	12
South Dakota.						
Gary				1.00	1 00	13
Millbank		5.00	27-28			
Parkston				2.30	1 00	12
Wolsey				1.25	0 45	14
Tennessee.						
Bethel Springs		2.59	19			
Nashville				1.18	0 54	1
Texas.						
Abilene				1.00	0 20	29
Belton		3.12	9	1.23	0 45	1
Brady		2.61	25			
Brownwood		3.00	24			
Burnett		2.55	31			
Camp Eagle Pass		4.45	30			
Duval		2.75	9			
Fay				1.12	0 50	7
Galveston		4.32	8-9	2.35	2 02	9
Graham				1.12	0 45	27
Houston				1.62	1 15	2
Huntsville		2.50	14			
Mountain Spring				1.29	1 00	13
Paris		2.50	14			
Round Rock		3.56	9			
San Antonio (W. B.)		3.20	31	3.20	2 45	31
San Antonio (V. O.)		3.23	31	1.34	0 45	1
Victoria		2.78	15	2.78	1 40	15
Vermont.						
Saxtons River		2.81	25			
Virginia.						
Birdsnest		5.55	21-22	1.35	0 35	22
Cape Henry		3.94	23			
Norfolk				1.67	1 00	31
Standardsville		3.50	1			
Do		4.29	23-24			
Staunton		2.65	25			
West Virginia.						
Bluefield				2.49	1 15	2
Glenville				1.14	0 20	12
Wisconsin.						
Barron				1.68	1 00	29
Florence		2.50	10			
Milwaukee		2.52	24			
Osceola		3.00	29-30			
Raymond		4.00	24			
Sparta *b*				1.12	0 30	10

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Alabama.						
Tuscaloosa	10.03					
Wetumpka	10.10	2.70	14			
Montana.						
Great Falls				1.18	0 25	9
West Virginia.						
Morgantown *b*		2.65	3			

MAXIMUM RAINFALL IN ONE HOUR OR LESS.

The following table is a record of the heaviest rainfall during August, 1892, for periods of five and ten minutes and one hour, as reported by regular stations of the Weather Bureau furnished with self-registering gauges:

Station.	Maximum fall in—					
	5 min.	Date.	10 min.	Date.	1 hour.	Date.
	Inch.		*Inch.*		*Inch.*	
Atlanta, Ga	0.45	1	0.65	1	1.15	25
Bismarck, N. Dak	0.30	27	0.56	27	1.05	27
Boston, Mass	0.50	12	0.80	12	1.50	12
Buffalo, N. Y	0.30	19	0.40	19	0.70	19
Cincinnati, Ohio	0.20	24	0.30	24	0.45	19, 24
Chicago, Ill	0.20	30	0.21	30	0.23	30
Cleveland, Ohio	0.35	19	0.56	19	1.12	19
Denver, Colo	0.04	8	0.05	8	0.15	28
Detroit, Mich	0.16	19	0.24	19	0.80	19
Dodge City, Kans	0.35	23	0.60	9	1.15	9
Duluth, Minn	0.25	16	0.30	16	0.55	8
Eastport, Me	0.27	5	0.30	5	0.42	12
Galveston, Tex	0.31	9	0.41	9	1.10	9

Maximum rainfall in one hour or less—Continued.

Station.	Maximum fall in—					
	5 min.	Date.	10 min.	Date.	1 hour.	Date.
	Inch.		*Inch.*		*Inch.*	
Indianapolis, Ind	0.25	19	0.30	19	0.38	19
Jacksonville, Fla	0.45	31	0.80	31	1.30	31
Jupiter, Fla	0.30	14	0.50	14	1.05	14
Kansas City, Mo	0.09	22	0.15	22	0.35	9
Key West, Fla	0.14	11	0.18	11	0.30	11
Marquette, Mich *						
Memphis, Tenn	0.20	11	0.23	11	0.45	11
Milwaukee, Wis	0.12	24	0.17	24	0.50	24
New Orleans, La	0.20	16	0.35	16	1.07	16
New York, N. Y	0.20	11	0.30	11	0.65	9
Norfolk, Va	0.38	31	0.57	31	1.67	31
Philadelphia, Pa	0.19	25	0.30	25	0.77	25
Philadelphia Water Works	0.17	25	0.34	25	0.51	25
Pittsburg, Pa†						
Portland, Oregon*						
Saint Louis, Mo	0.40	7	0.51	7	0.86	7
Saint Paul, Minn	0.20	8	0.35	8	0.67	8
Salt Lake City, Utah *						
San Diego, Cal*						
San Francisco, Cal *						
Savannah, Ga	0.33	10	0.40	10	0.78	10
Tampa, Fla	0.40	9	0.80	9	1.83	9
Washington, D. C	0.15	5	0.20	5	0.30	5
Wilmington, N. C	0.25	30	0.39	30	0.92	24

• Less than 0.05 in 1 hour. †Self-register out of order.

The following tables show the number of years for which monthly precipitation to equal or exceed 10.00 inches, daily precipitation to equal or exceed 2.50 inches, and hourly precipitation to equal or exceed 1.00 inch has been reported in the several states and territories for August during the last 23 years:

Excessive monthly precipitation.

State.	No. years noted.	State.	No. years noted.
Florida	19	Wisconsin	3
North Carolina	17	Kentucky	3
Georgia	16	Arkansas	2
South Carolina	10	Delaware	2
Alabama	10	Maine	2
Virginia	9	Mississippi	2
New York	9	West Virginia	2
Texas	8	Arizona	1
Kansas	7	Colorado	1
Louisiana	7	The Dakotas	1
New Hampshire	7	District of Columbia	1
Illinois	6	Minnesota	1
New Jersey	6	New Mexico	1
Indiana	6	Vermont	1
Iowa	6	California	1
Massachusetts	6	Idaho	0
Connecticut	5	Indian Territory	0
Ohio	5	Montana	0
Pennsylvania	5	Nevada	0
Missouri	5	Oregon	0
Maryland	4	Rhode Island	0
Tennessee	4	Utah	0
Michigan	3	Washington	0
Nebraska	3	Wyoming	0

Excessive daily precipitation (24 hours).

State.	No. years noted.	State.	No. years noted.
Georgia	21	New Jersey	11
Texas	20	Nebraska	10
Florida	19	Indiana	10
North Carolina	19	Maryland	8
South Carolina	18	New Hampshire	8
Pennsylvania	16	Indian Territory	7
Iowa	15	West Virginia	6
Missouri	15	Delaware	5
New York	15	Arizona	5
Tennessee	15	Kentucky	5
Massachusetts	14	Rhode Island	4
Illinois	14	Vermont	3
Mississippi	13	Montana	2
Alabama	13	Maine	2
Ohio	13	Colorado	1
Kansas	13	California	1
Wisconsin	13	District of Columbia	0
Michigan	12	Idaho	0
Connecticut	12	Nevada	0
The Dakotas	12	New Mexico	0
Arkansas	12	Oregon	0
Louisiana	12	Utah	0
Virginia	12	Washington	0
Minnesota	11	Wyoming	0

Excessive hourly precipitation.

State.	No. years noted.	State.	No. years noted.
Texas	17	Kentucky	5
Florida	15	New Jersey	5
Georgia	15	Colorado	4
Tennessee	14	Connecticut	4
Pennsylvania	13	Massachusetts	4
Kansas	13	New Hampshire	4
Ohio	13	Wisconsin	4
North Carolina	12	New Mexico	3
Iowa	11	Maine	2
Michigan	11	Montana	2
South Carolina	11	Rhode Island	2
Virginia	11	Minnesota	2
The Dakotas	10	Indian Territory	2
Nebraska	10	West Virginia	2
Illinois	9	District of Columbia	1
Indiana	9	Vermont	1
New York	8	California	1
Mississippi	8	Delaware	1
Maryland	7	Washington	1
Louisiana	7	Idaho	0
Arkansas	6	Nevada	0
Missouri	6	Oregon	0
Arizona	5	Utah	0
Alabama	5	Wyoming	0

The following tables give exceptionally heavy monthly, daily, and hourly precipitation reported for August during the last 23 years:

Monthly.

Station and state.	Am't.	Year.	Station and state.	Am't.	Year.
	Inches.			*Inches.*	
Fort Barrancas, Fla	30.73	1878	Charleston, Ill	23.04	1882
Asheville, N. C	28.65	1887	New Smyrna, Fla	23.00	1871
Elsworth, N. C	28.33	1880	New Orleans, La	22.74	1888
Fort Barrancas, Fla	25.07	1879	Tarboro, N. C	22.73	1887
Maurepas, La	23.44	1888	Saint Augustine, Fla	21.50	1871
Newport, Fla	23.25	1872	Fairview, Fla	21.35	1871

Daily (24 hours).

Station and state.	Amount.	Date.	Station and state.	Amount.	Date.
	Inches.			*Inches.*	
Campo, Cal*	11.50	12, 1891	Central City, Ky	7.02	22, 1891
Griffin, Ga	10.38	8, 1883	Union Point, Ga	6.60	26-27, 1891
Granbury, Tex	10.15	26, 1888	Carson, Iowa	6.50	9, 1889
Fort Barrancas, Fla	9.75	29, 1878	North Hammond, N. Y.	6.40	26, 1892
Hatteras, N. C	9.14	23, 1880	Chicago, Ill	6.33	2-3, 1885
Tecumseh, Nebr	9.00	12, 1889	Hazlehurst, Miss	6.00	27, 1890
Elsworth, N. C	9.00	4, 1880	Phillips, Wis	6.00	8, 1890
New Orleans, La	8.90	20, 1888	Clarksville, Tenn	5.90	20, 1891
Mandeville, La	8.54	8, 1888	Birdsnest, Va	5.55	21-22, 1892
Cape May, N. J	8.46	18, 1879	Camp Eagle Pass, Tex	5.50	2, 1891
Kittyhawk, N. C	8.14	15, 1883	Sugar Ex. Station, La	5.48	15, 1892
Vesper, Kans	8.10	19, 1890	Washington, Ga	5.40	26, 1891
Grantsburg, Wis	7.75	19-20, 1889	Fort Smith, Ark	5.10	19-20, 1890
Johnstown, Va	7.70	18, 1879	Lillington, N. C	5.02	22-23, 1891
Marshall, Mo	7.48	18-19, 1891	Thomasville, Ga	5.02	15-16, 1892

*Cloudburst; rainfall not all measured.

One hour and less.

Station and state.	Amount.	Time.	Date.
	Inches.	*h. m.*	
Boston, Mass	0.50	0 05	12, 1892
Savannah, Ga	0.50	0 05	28, 1891
Atlanta, Ga	0.45	0 05	1, 1892
Indianapolis, Ind	0.45	0 05	19, 1891
Jacksonville, Fla	0.45	0 05	19, 1892
Wilmington, N. C	0.43	0 05	18, 1887
New York, N. Y	0.43	0 05	18, 1887
Galveston, Tex	0.40	0 05	4, 1891
Kansas City, Mo	0.40	0 05	15, 1891
Eastport, Me	0.40	0 05	12, 1891
Saint Louis, Mo	0.40	0 05	7, 1892
Tampa, Fla	0.40	0 05	9, 1892
Galveston, Tex	0.39	0 05	22, 1891
Norfolk, Va	0.38	0 05	31, 1892
Philadelphia, Pa	0.36	0 05	28, 1891
Cleveland, Ohio	0.35	0 05	19, 1892
Dodge City, Kans	0.35	0 05	23, 1892
Jupiter, Fla	0.35	0 05	2, 1890
Saint Louis, Mo	0.35	0 05	11, 1891
Saint Paul, Minn	0.35	0 05	20, 1891
Atlanta, Ga	0.35	0 05	18, 1891
Dodge City, Kans	0.34	0 05	12, 1891

Precipitation to equal or exceed 1 inch in 1 hour—Continued.

Station and state.	Amount.	Time.	Date.
	Inches.	*h. m.*	
Savannah, Ga	0.33	0 05	10, 1892
Memphis, Tenn	0.32	0 05	26, 1890
Galveston, Tex	0.31	0 05	9, 1892
Bismarck, N. Dak	0.30	0 05	27, 1892
Buffalo, N. Y	0.30	0 05	19, 1892
Jupiter, Fla	0.30	0 05	14, 1892
New York, N. Y	0.30	0 05	23, 1891
Washington, D. C	0.30	0 05	1, 1890
Norfolk, Va	0.30	0 05	26, 1891
Eastport, Me	0.27	0 05	5, 1892
Indianapolis, Ind	0.25	0 05	19, 1892
Wilmington, N. C	0.25	0 05	30, 1892
Boston, Mass	0.80	0 10	12, 1892
Jacksonville, Fla	0.80	0 10	31, 1892
Tampa, Fla	0.80	0 10	9, 1892
Galveston, Tex	0.75	0 10	4, 1890
Atlanta, Ga	0.65	0 10	1, 1892
Dodge City, Kans	0.60	0 10	9, 1892
Key West, Fla	0.60	0 10	30, 1891
New York, N. Y	0.59	0 10	4, 1888
Bismarck, N. Dak	0.50	0 10	27, 1892
Cleveland, Ohio	0.56	0 10	19, 1892
Norfolk, Va	0.57	0 10	31, 1892
Saint Louis, Mo	0.51	0 10	7, 1892
Jupiter, Fla	0.50	0 10	14, 1892
Salisbury, N. C	0.50	0 10	13, 1888
Charleston, S. C	1.41	0 18	9, 1890
Lead Hill, Ark	1.00	0 18	2, 1882
Escanaba, Mich	1.27	0 20	11, 1877
Marksville, La	1.25	0 20	27, 1892
Albany, N. Y	1.20	0 20	2, 1878
Glenville, W. Va	1.14	0 20	12, 1892
Nashville, Tenn	1.10	0 20	17, 1891
Emporium, Pa	1.05	0 20	5, 1890
Parkersburg, W. Va	1.01	0 20	1, 1890
Mossing Ford, Va	1.00	0 20	2, 1890
Abilene, Tex	1.00	0 20	29, 1892
Louisville, Ky	1.26	0 23	20, 1878
Hardin, Colo	1.52	0 24	13, 1890
Galveston, Tex	1.55	0 25	17, 1871
Ithaca, N. Y	1.47	0 25	4, 1892
Colorado Springs, Colo	2.75	0 30	14, 1890
Mesquite, Tex	2.50	0 30	10, 1875
Lebo, Kans	2.01	0 30	22, 1892
Wellsboro, Pa	1.95	0 30	21, 1885
Vevay, Ind	1.90	0 30	13, 1879
Grantsburg, Wis	1.88	0 30	7, 1889
Manistee, Mich	1.67	0 30	8, 1892
Queensbury, N. Y	1.56	0 30	14, 1890
Mount Auburn, Ohio	1.52	0 30	26, 1880
Providence, R. I	3.50	0 35	6, 1878
Auburn, N. H	3.00	0 35	27, 1877
Hulmeville, Pa	2.20	0 35	25, 1880
Pittsburg, Pa	1.85	0 35	16, 1884
Cincinnati, Ohio	1.85	0 35	27, 1882
Sharon Springs, Kans	2.00	0 40	20, 1892
Jacksonville, Fla	3.72	0 41	20, 1873
Philo, Ill	3.63	0 45	5, 1892
Hudson, Wis	2.50	0 45	11, 1891
Detroit, Mich	2.48	0 45	31, 1878
Sandusky, Ohio	2.25	0 45	24, 1892
Charlotte, N. C	2.01	0 45	3, 1890
Weldon, N. C	3.43	0 50	22, 1892
Fort Union, N. Mex	2.34	0 50	12, 1883
Princeton, Mo	4.00	1 05	15, 1891
Campo, Cal	11.50	1 20	12, 1891
Plover, Wis	4.50	1 30	3, 1890

HAIL.

Description of the more severe hailstorms of the month is given under "Local storms." Hail was reported as follows: 1st, Georgia, Illinois, Michigan, Nebraska, and North Carolina. 2d, Illinois. 3d, Michigan, Minnesota, New York, and Ohio. 4th, Indiana, New York, Ohio, Pennsylvania, and West Virginia. 5th, Illinois and Maine. 6th, Colorado, Nebraska, New Hampshire, New York, North Dakota, and Vermont. 7th, Florida, Minnesota, North Carolina, and South Dakota. 8th, Iowa, Minnesota, Nebraska, Nevada, South Dakota, and Wisconsin. 9th, Iowa, Missouri, Nebraska, and New York. 10th, Colorado, Minnesota, Nebraska, North Dakota, and South Dakota. 11th, South Dakota. 12th, Minnesota, Nebraska, North Dakota, and South Dakota. 13th and 14th, South Dakota. 17th, Nebraska and North Dakota. 18th, Missouri. 19th, Arizona, Indiana, New York, and West Virginia. 20th, Colorado, Kansas, Missouri, Nebraska, and South Dakota. 21st, Colorado and Pennsylvania. 22d, Colorado, Louisiana, Oklahoma, Utah, Virginia, and West Virginia. 23d, Kansas, Louisiana, Nevada, New Mexico, and Oklahoma. 24th, Colorado, Idaho, Indiana, Nebraska, New Mexico, and New York. 25th, Colorado and Oklahoma. 27th, Colorado, Kansas,

Minnesota, North Dakota, Oklahoma, and South Dakota. 28th, Colorado, Kansas, Minnesota, Missouri, Nebraska, and North Dakota. 29th, Alabama, Kansas, Nebraska, and Oklahoma. 31st, Iowa and North Dakota.

WINDS.

The prevailing winds for August, 1892, are shown on Chart II by arrows flying with the wind. In New England the winds were generally from the southwest; in the middle Atlantic states and along the south Pacific coast, from southwest to northwest; in the south Atlantic and Gulf states and over the southern plateau region, from southeast to southwest; over the Florida Peninsula and in the Missouri Valley, from east to south; in the upper Mississippi valley, from northeast to southeast; on the middle-eastern slope of the Rocky Mountains and over the northern plateau region, southerly; on the southeast slope of the Rocky Mountains, from south to west; on the north Pacific coast, from west to north; on the immediate middle Pacific coast, from west to northwest; and in the Sacramento Valley, from southeast to south. In the Ohio Valley and Tennessee, the Lake region, extreme northwest, on the northeast slope of the Rocky Mountains, and over the middle plateau region the winds were variable.

HIGH WINDS.

[In miles per hour.]

Wind velocities of 50 miles, or more, per hour were reported at regular stations of the Weather Bureau as follows: 12th, 50, e., at Moorhead, Minn. 13th, 56, s., at Fort Canby, Wash.; 54, ne., at Oklahoma City, Okla.; 52, n., at Sioux City, Iowa; 50, ne., at Dodge City, Kans. 14th, 52, ne., at Huron, S. Dak. 15th, 60, nw., at Mount Washington, N. H. 17th, 52, s., at Pensacola, Fla.

LOCAL STORMS.

1st.—At Monroe, N. C., a thunder, rain, and hail storm moved northeast in a path one-half mile in width at 5.30 p. m. A man was reported killed by lightning at Shelby, N. C. One man was killed and another injured by lightning at Greenwood, S. C. A man was reported killed by lightning at Columbus, Ohio. A severe wind, rain, and hail storm caused some damage in the southern part of Chicago, Ill. During a thunderstorm in the early morning lightning struck in several places in Grand Haven, Mich. At Fruitport, 7 miles northeast of Grand Haven, buildings were unroofed and trees blown down. A severe thunder and rain storm visited Orange, Tex., in the evening.

3d.—At North Liberty, N. Y., roofs and orchards were damaged during a thunder and hail storm. A schooner was struck by lightning at Savannah, Ga. At Toledo, Ohio, a thunderstorm from the west, with rain and hail, began at 7.40 p. m. and ended 11.40 p. m.; lightning struck in several places, and the electric car service was suspended for 30 minutes. A man was killed by lightning near Grand Haven, Mich. A thunder, rain, and hail storm in the afternoon caused damage about Kalamazoo, Mich. Damage by lightning was reported at Lansing, Mich. The northern counties of Minnesota were swept by a destructive wind and hail storm at night. Considerable damage of a minor character was caused at South Bend, Ind., by a thunderstorm.

4th.—A house was struck by lightning at Westminster, Vt.; damage $1,000. Trees were struck by lightning at Royalston, Mass. Several barns about New Castle and New Carlisle, Ind., were struck by lightning and burned. A sandstorm, with some thunder and lightning, was reported in Maricopa county, Ariz., in the afternoon.

5th.—At Eastport, Me., a thunderstorm, with light hail for 30 seconds, began 8.30 and ended 10.30 a. m.; 4 houses were struck and 2 persons were stunned by lightning. During a thunderstorm in the afternoon 2 persons were killed by lightning near Boston, Mass. A heavy thunder and rain storm moved northeast over Titusville, Fla., from 12.15 to 1.20 p. m.; the wind reached a velocity of 44 miles per hour in a southwest squall. Destructive thunderstorms were reported in southern Illinois. One person was reported killed by lightning at Two Rivers, Wis. A building was struck by lightning at Monroe, Wis. A severe storm visited Marshall, Minn., in the morning; 3 persons were seriously injured, and property was destroyed to the estimated value of $3,500. A thunderstorm visited Red Wing, Minn., in the early morning; 2 houses near Red Wing were struck by lightning.

6th.—A thunder and hail storm occurred in the northern parts of Sullivan and Merrimack counties, N. H., damaging crops, etc., in a narrow path about 15 miles in length. At Rantoul, Ill., stock was killed during a thunderstorm.

7th.—A house was struck by lightning at Wilmington, N. C. Destructive hailstorms were reported in southern Minnesota. Damage was caused by lightning at Huron, S. Dak.

8th.—A number of persons were shocked by lightning at Parkersburg, W. Va. At Manistee, Mich., a severe thunderstorm began 9 a. m. and ended 10.30 a. m.; 1.67 inch of rain fell in 30 minutes, flooding streets. In the early morning 3 houses were struck by lightning and damage was caused by high wind at Saint Paul, Minn. Damage was caused by high wind at Minneapolis, Minn., in the early morning. At Lake Stay, Minn., several buildings were blown down during a thunder and hail storm. Several buildings were struck by lightning at Stillwater, Minn. Crops and buildings were damaged by hail about Lake Benton, Minn. A thunderstorm, with high wind, rain, and large hail, damaged grain about Canby, Minn. Hail damaged grain about Marshall and Saint Cloud, Minn. A child was killed by lightning in the morning near Green Bay, Wis. During a heavy rain and wind storm one person was killed and damage was caused to property near Depere, Wis. At Watertown, S. Dak., buildings were unroofed and crops damaged during a rain and hail storm. A house was struck by lightning at Sioux City, Iowa. Lightning struck in several places at Prescott, Ariz.

9th.—At Royalston, Mass., a house was struck by lightning. A thunderstorm, with heavy rain and high wind, visited Cohoes, N. Y., in the afternoon. A heavy rain and thunder storm occurred at Syracuse, N. Y., in the morning. Hail and high wind damaged crops about New Lisbon, N. Y. During a thunderstorm at night several buildings were struck by lightning at Dyberry, Pa. Two houses in Saint Louis, Mo., were struck by lightning in the afternoon. A thunderstorm injured crops about Fayette, Iowa. Stock was killed by lightning near Monticello, Iowa. One person was killed and another injured by lightning at Laporte, Iowa. At Topeka, Kans., a heavy rain and wind storm occurred in the early evening; the wind reached a velocity of 60 miles per hour from the southwest; one person was killed and much damage was caused to buildings.

10th.—Several buildings were struck by lightning at West Milan, N. H. A severe thunderstorm occurred at Albany, N. Y., in the evening. Heavy storms were reported in eastern New York, and a destructive cloudburst visited Wilkesbarre, Pa., in the afternoon. In the evening corn and wheat about Valentine, Nebr., were damaged by a thunder, rain, wind, and hail storm.

11th.—A number of persons were injured by lightning at Tilton, N. H. A cloudburst caused great damage in Chittenden county, Vt. An exceptionally severe thunder and rain storm occurred at night in Massachusetts and Connecticut; several persons were reported killed by lightning. A boy was stunned by lightning at Beverly, N. J. In the afternoon 2